BRITISH COLUMBIA

StrongerBC

for everyone

MANUFACTURING ACTION PLAN


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Minister's Message

British Columbia has a long and proud heritage of producing high-quality, trusted goods that serve the needs of local communities and are exported globally.

As Minister of Jobs, Economic Development and Innovation, I have the opportunity and privilege of meeting with manufacturers across the province and have seen firsthand the ingenuity, dedication and resilience that defines our manufacturing community.

Whether it's a manufacturer of innovative wood products that helps to create more affordable housing across B.C., or a food producer supplying quality dairy products to local store shelves, or a machinery manufacturer that exports specialized equipment across the world, the fundamental benefits of a thriving manufacturing community are the same: well-paying jobs, strong communities, and resilient supply chains that British Columbians can count on.

One of the many advantages of B.C.'s manufacturing sector is its diversification. In addition to our continued strengths in wood and paper products, food and beverages, metals, and industrial machinery, B.C. has seen significant growth in other industries like aerospace, medical products and pharmaceuticals, battery components and electric vehicles, and maritime industries like shipbuilding. This is a testament to the innovation and pioneering spirit our province is renowned for.

And, in addition to producing material goods, our manufacturers also support the delivery of valuable services like transportation, engineering, IT, consulting and maintenance to local and international firms – key growth areas as supply chains and technologies become more complex. Manufacturing is also critical to securing our quality of life in the face of global challenges like climate change, supply chain disruptions, and geopolitical uncertainties.

British Columbians can take comfort in knowing that our government is making historic investments in manufacturing to support an economy that works for everyone. The Manufacturing Action Plan reflects our continued commitment to supporting B.C. manufacturers of all sizes with the tools, resources, training, funding and infrastructure that will drive continued growth and investment in the sector. This work is all part of our economic plan – StrongerBC – which is delivering concrete results for workers, businesses, and communities across B.C.

Our sincere gratitude goes out to the dozens of industry experts and associations, First Nations, economic development agencies, and government partners for their invaluable insight and advice that informed the development of this action plan. We look forward to continuing to work together to strengthen this vital sector to drive more clean and inclusive growth in every corner of the province.

Brenda Bailey,
Minister of Jobs, Economic Development and Innovation

B.C. Manufacturing Action Plan

The Opportunity

British Columbians take pride in what's made right here. And for good reason: B.C. has a strong reputation for producing high-quality goods and services that are sought after around the world.

Whether it's precision aircraft components, sustainable wood products, innovative medical devices, industrial-scale marine vessels, or quality food and beverage products you find on local store shelves, all of these things have one thing in common: they're manufactured right here in British Columbia.

And as global disruptions like the COVID-19 pandemic and climate change have shown, British Columbians expect reliable supply chains that deliver the goods and services they count on every day.

That's why manufacturing matters. It's essential for everyday life. Our families and our communities depend on the success of B.C.'s manufacturing sector. Now, more than ever, a thriving and diversified manufacturing sector is critical.

British Columbians also expect that we get the most value-added from our precious natural resources. Our Action Plan will focus on strengthening our value-added industries that are positioned for growth and are aligned with our world-leading environmental standards.

A strong B.C. manufacturing sector means:

- Well-paying jobs in communities across the province
- Business growth opportunities
- More reliable and resilient supply chains
- New export opportunities to established and emerging markets
- Strengthening our global reputation as a supplier of high-quality goods and services
- Innovative products and processes that can be patented and developed locally
- Investments in clean technologies to produce low-carbon goods

The case for manufacturing is clear. Our Manufacturing Action Plan – part of our broader StrongerBC Economic Plan – will make generational investments in manufacturing to fully capitalize on our industries of opportunity.

B.C.'s Manufacturing Sector

B.C.'s diverse manufacturing sector draws on our rich natural resources to create high-quality and innovative forestry, mining, food and beverage, and energy products. It also has a robust non-resource manufacturing ecosystem, with shipbuilding, aerospace and machinery production capabilities as well as major companies in innovative, sustainable areas such as cleantech and life sciences. B.C. manufacturers benefit from a highly skilled workforce, low-cost renewable electricity, easy access to international markets through our major air and cargo ports, and competitive free trade agreements with the U.S., Asian and European markets.

The manufacturing sector has exhibited steady growth over the last decade and now contributes approximately $18 billion to B.C.'s gross domestic product (GDP) each year. Manufacturing is the fifth-largest contributor to the B.C. economy, accounting for over 6% of B.C.'s total GDP.

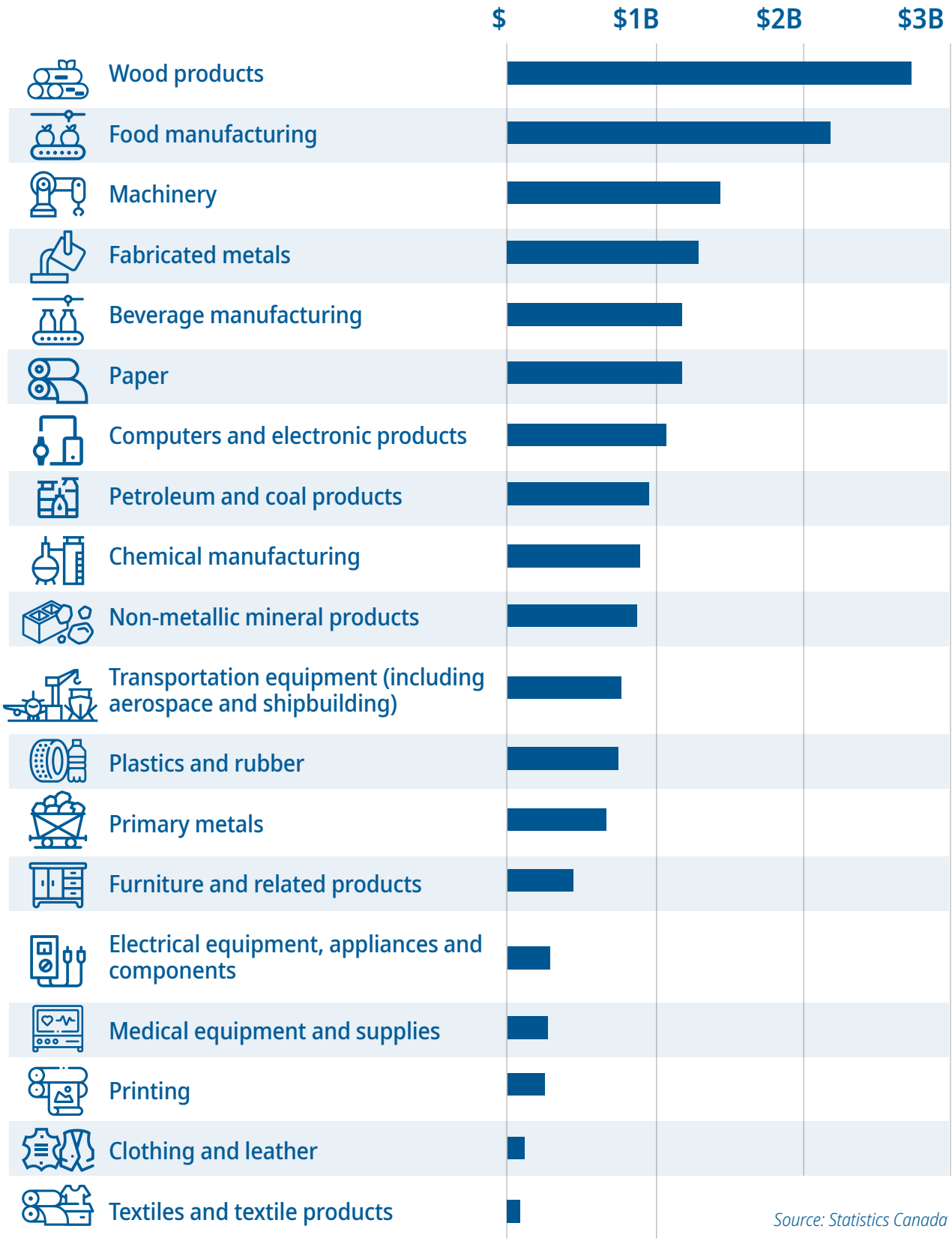
Manufacturing creates extensive spin-off benefits for communities across the province. Many B.C. technology companies and ancillary businesses benefit from the diverse array of goods and services produced locally. In addition to the direct jobs created by manufacturing, the sector supports a wide range of service areas including maintenance and repair, transportation and logistics, engineering, accounting, legal assistance, and many others.

B.C. has a rich history of manufacturing and has highly diversified industrial capabilities. Today, there are nearly 20,000 manufacturing businesses in the province, many with decades-long legacies of excellence with international reach.

Manufacturing is a significant employment driver in B.C. – the sector sustains approximately 170,000 well-paying jobs. Every 100 direct jobs in the manufacturing sector supports approximately 80 jobs in the rest of the economy as business revenues and wages generated from manufacturing are recirculated within our communities. Manufacturing businesses are the lifeblood of communities small and large in B.C., with approximately 40% of B.C.'s manufacturing jobs located outside the Lower Mainland.

Manufacturing is also a key driver of British Columbia's exports. In fact, approximately 50% of B.C.'s exports are manufactured goods. The value of B.C.'s manufacturing exports exceeds $30 billion each year, revenues from which support province-wide public services like hospitals, schools, and transportation infrastructure.

B.C.'s Largest Manufacturing Industries by Value-Added



Source: Statistics Canada

During the COVID-19 pandemic, we provided significant supports to manufacturers through a combined $16 million investment via the Accelerating Manufacturing Grants Program and Supply Chain Resiliency Grants Program. Throughout the turbulence of the pandemic, the sector has demonstrated its resilience and adaptability, with 4,000 net new manufacturing jobs added since 2020.

The future for B.C. manufacturing is bright: B.C.'s 2023 Labour Market Outlook projects over 50,000 new job openings in manufacturing over the next decade.

This means that the manufacturing sector presents real opportunities for British Columbians to find rewarding and well-paying careers here at home.

A diverse array of manufacturing jobs are well-paying, with many manufacturing industries in B.C. having average compensation of more than $50 per hour, including aerospace, medical products, shipbuilding, primary metals, electrical equipment, petroleum products, machinery, paper products, and wood products.

What is manufacturing?

Manufacturing is the process of transforming raw and recycled materials into products. All forms of manufacturing – such as refining, fabricating, or preserving – add value to a product.

What is value-added?

Value-added means that a product has been enhanced with additional or improved qualities that make it more valuable than the raw or recycled materials it is sourced from.

What is advanced manufacturing?

Advanced manufacturing is the use of innovation and sophisticated technology to add a high level of value to products or processes. Advanced manufacturers often deploy "Industry 4.0" technologies such as automation, cutting-edge computer software, artificial intelligence and remote sensors to optimize processes and maximize value-added.

What are the benefits of advanced manufacturing?

Advanced manufacturing can strengthen businesses competitiveness by improving product quality and reliability, enhancing production efficiency and customization, lowering per-unit prices through economies of scale, reducing emissions and waste, and improving customer satisfaction.

The Path Forward

Our value-added industries have tremendous growth potential. That's because B.C. offers an array of advantages for manufacturers, including:

- A wealth of natural resources
- A diverse and highly-skilled workforce
- Entrepreneurial manufacturing community with strong networks and collaboration
- Top-ranked post-secondary institutions
- Vibrant technology and innovation sector
- Abundant clean and low-cost hydroelectricity
- World-leading climate action plan and Environmental, Social and Governance (ESG) Centre of Excellence reputation
- Ready access to global markets through our free trade agreements
- Extensive rural land base with opportunities for investment and expansion

To develop the Manufacturing Action Plan, we engaged with over 50 partners including industry associations, manufacturing businesses, Indigenous partners, and federal and local government departments and agencies. As the Action Plan rolls out, we will continue to build relationships with our partners and stakeholders to ensure provincial initiatives for manufacturing are aligned with key industry needs and opportunities for growth.

Partnering with Indigenous Peoples

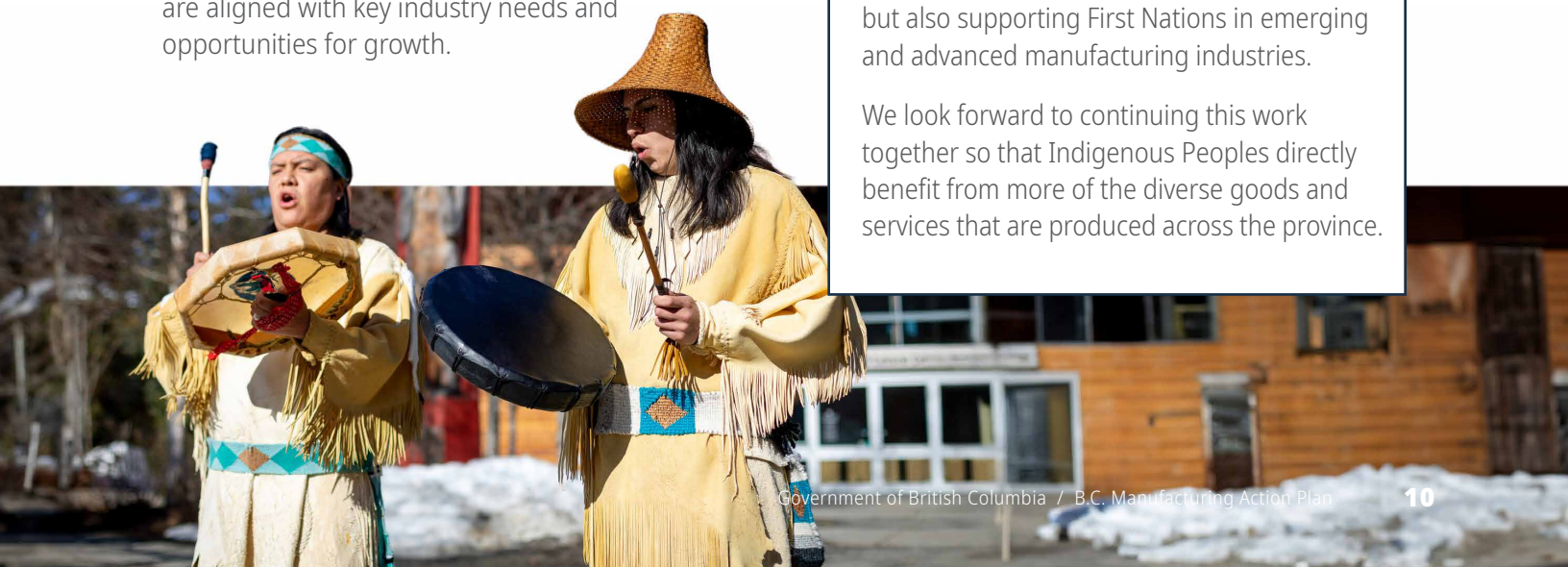
British Columbia's passage of the *Declaration on the Rights of Indigenous Peoples Act* (Declaration Act) confirmed the United Nations Declaration on the Rights of Indigenous Peoples as the framework for achieving true, lasting, and meaningful reconciliation with Indigenous Peoples, as called for by the Truth and Reconciliation Commission of Canada.

The B.C. Government's commitments to reconciliation with Indigenous Peoples, and respect for Indigenous rights and First Nations title and traditional territories, are vital to B.C.'s economic future, and are central to the StrongerBC Economic Plan and the Manufacturing Action Plan.

We express our sincere gratitude to the many Indigenous partners that have shared their wisdom, lived experiences, and recommendations which have informed the **StrongerBC Economic Plan** and the Manufacturing Action Plan.

Indigenous participants in the consultations expressed a deep eagerness and urgency to become full partners in B.C.'s diverse manufacturing industries and the broader economy. This includes empowering First Nations to leverage their strengths in traditional manufacturing industries like forestry, clothing and textiles, and agrifood, but also supporting First Nations in emerging and advanced manufacturing industries.

We look forward to continuing this work together so that Indigenous Peoples directly benefit from more of the diverse goods and services that are produced across the province.



Our Manufacturing Action Plan will focus on growing and supporting businesses and manufacturing industries that:

- Are positioned for future growth
- Can achieve economies of scale while being environmentally sustainable
- Have strong capacity for innovation and substantial value-added
- Are aligned with broader provincial priorities, including climate action and inclusion of Indigenous Peoples

Our Goal: *Grow B.C.'s manufacturing sector by strengthening our industrial competitiveness and capitalizing on our industries of highest opportunity through five strategic policy pillars.*

Based on these criteria, six industries of highest opportunity have been identified that will position B.C. as a global manufacturing leader. These include:

- Value-added forest products & biomaterials
- Food & beverage processing
- Metals & machinery
- Aerospace
- Shipbuilding & industrial marine
- Medical products & biomanufacturing

The Manufacturing Action Plan is a comprehensive strategy for the entire B.C. manufacturing sector and will complement existing B.C. initiatives for specific industries like the Life Sciences & Biomanufacturing Strategy, Mass Timber Action Plan, Critical Minerals Strategy, and Maritime Industries Strategy.

The B.C. Manufacturing Action Plan is based on five pillars that will build on our strengths and capitalize on new growth opportunities:

Pillar 1:

Increasing Productivity and Innovation

Pillar 2:

Supporting Clean Manufacturing and Net-Zero New Industry

Pillar 3:

Building a Future-Ready Manufacturing Workforce

Pillar 4:

Making our Supply Chains More Resilient and Diversified

Pillar 5:

Preserving and Developing Industrial Lands to Support Local Economies

Pillar 1:
Increasing Productivity and Innovation

Manufacturing is a highly dynamic sector with intensifying global competition. And B.C. manufacturers are up for the challenge. To be competitive, B.C. manufacturers must offer high-quality products that are innovative, widely accessible, and offered at attractive prices.

We know that our industrial competitiveness is directly tied to our productivity. And increasing our productivity requires us to be innovative in what we produce and how we produce it.

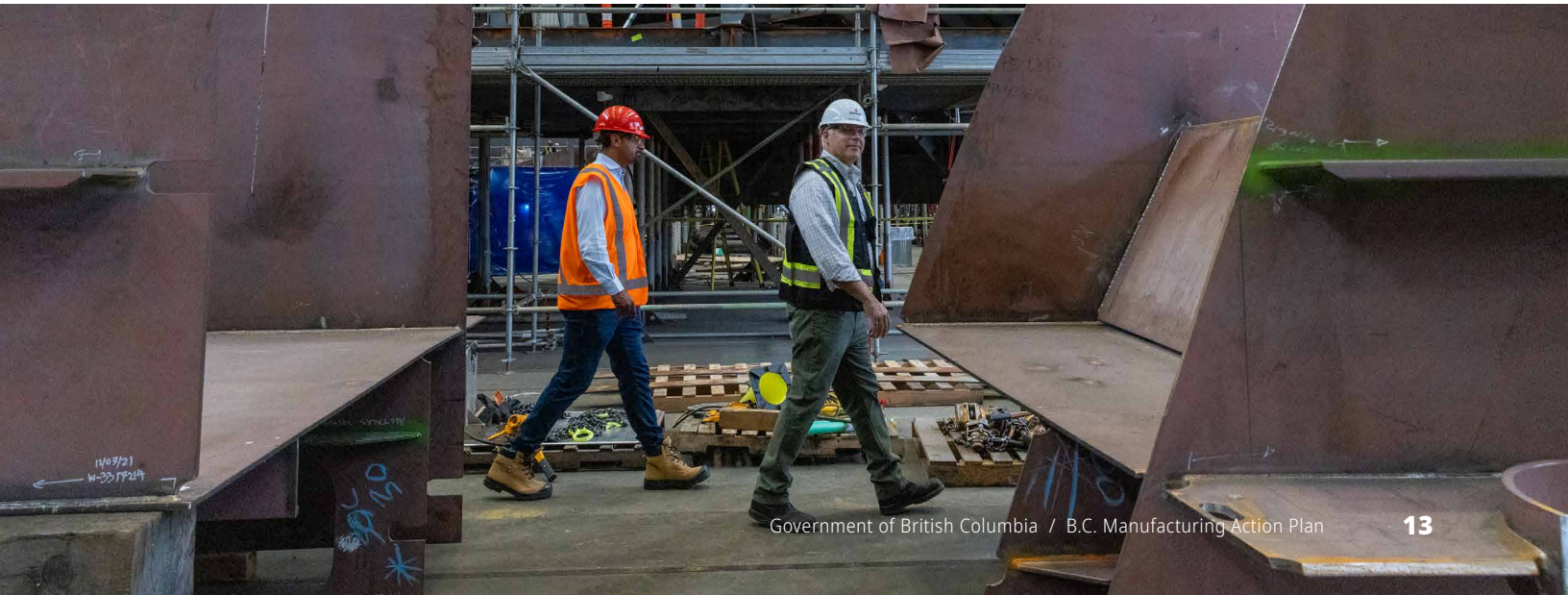
1.1 Incentivize Investment in New Manufacturing Facilities and Capital Upgrades

Our approach to strengthening the competitiveness of B.C. manufacturing will focus on incentivizing investment in technology, machinery, equipment and operating infrastructure. Our investments will leverage investments from the private sector wherever possible to maximize positive economic impacts for communities in British Columbia.

The **B.C. Manufacturing Jobs Fund (MJF)** will help manufacturing companies modernize and grow their operations by funding capital projects in all regions of B.C., particularly in communities affected by economic impacts or downturns.

MJF will invest up to $180 million in projects that contribute to economic resilience and diversification and create and maintain stable, well-paying jobs for local workers. The program welcomes applications from all manufacturing sectors. Forestry sector projects featuring new, sustainable value-added business lines to reduce dependency on old growth logging and make innovative use of biomaterials are prioritized for funding. The combined economic impact of the MJF is expected to reach $900 million in combined public and private sector investment in manufacturing over three years.

The **Rural Economic Diversification and Infrastructure Program (REDIP)** supports rural projects that promote economic capacity building, economic diversification, resilience, clean economy opportunities, and infrastructure development. The program invests $23 million each year in partnership with local governments, First Nations and not-for-profit organizations. In 2022/23, the Province provided an additional $43 million to the program and in 2023/24 allocated an additional $10 million. To date, REDIP has approved 15 projects that support local manufacturing, representing a combined value of over $7.6 million.



The **B.C. Maritime Industries Infrastructure Modernization and Expansion Grant Program** will invest up to $25 million for projects that modernize, scale and increase regional capabilities and capacity for small vessel construction as well as boat and ship dry docks. Overhaul, refit, maintenance and repair infrastructure projects are also eligible.

The **InBC Investment Corporation** is a newly-established strategic investment fund created by the Government of British Columbia with $500 million to invest as a source of local and long-term capital for small and medium businesses, including those in the manufacturing sector. With a triple bottom line approach that values people, planet and profit, InBC seeks to build a more prosperous, sustainable and inclusive future for British Columbians.

The **CleanBC Plastics Action Fund,** initially announced in 2020, is investing over $40M over five years to support innovative projects that are reducing plastic waste through reuse, or increasing the use of post-consumer recycled plastic through processing and manufacturing. In the first two phases, the Fund has supported over 30 projects with businesses and Indigenous communities to reduce plastic waste, increasing B.C.'s capacity to process recycled plastics by an anticipated 38,000 tonnes annually.

Collaborating with NGen

Established in 2018, NGen is the industry-led, non-profit organization leading Canada's Global Innovation Cluster for Advanced Manufacturing. NGen is one of five national networks supported by the Government of Canada's ambitious Global Innovation Clusters Initiative.

NGen's mission is to:

1. Support development of world-leading advanced manufacturing capabilities in Canada,
2. Promote development, deployment and adoption of cutting-edge technologies, and
3. Connect the advanced manufacturing ecosystem with support for workforce and industry clusters.

To date, NGen has supported 46 B.C.-based companies and 26 advanced manufacturing projects led in British Columbia. NGen has directly invested over $26 million in these projects, with total public and private-sector innovation spending estimated at over $55 million. These initiatives are anticipated to create more than 1000 jobs over the course of the projects' lifespan.

Recent examples of NGen projects involving B.C. manufacturers include:

- A Transformative and Fully Integrated Digital Solution for Food Manufacturing (FPS Food Process Solutions Corp.)
- Advanced Production Scheduling Optimization System (Panevo Services Ltd.)
- Canadian Magnesium Cement Boards (LithiumBank Resources Corp & Progressive Planet Solutions)

The Province regularly engages with NGen to explore opportunities for B.C. manufacturers and to share information on current and new service offerings to promote uptake across the province.

1.2 Encourage Technology Adoption

Investment in innovation and technology adoption is the starting point on a virtuous cycle that ultimately leads to more output, employment and economic growth. Innovation and investment in new technologies improve business productivity, helping businesses become more competitive. The businesses then attract more production mandates and capture more market share, resulting in higher output and exports. Higher output leads to greater firm profitability, which leaves businesses with more money to invest in innovation and new technologies.

Investing in new productive assets and technology is critical to keep manufacturers competitive. According to Canadian Manufacturers & Exporters (CME), over 40% of manufacturers identify uncertainty on the return on investment and cost/benefit as the main reasons they are not investing in new technology. **CME's Technology Assessment Program** for B.C. manufacturers, funded by the Ministry of Jobs, Economic Development & Innovation, is helping companies understand which technologies are best suited for their needs and provide greater certainty on investments.

The Technology Assessment Program connects small and medium-sized manufacturers in British Columbia with LEAN Facilitators to get customized Technology Assessments. CME's LEAN Facilitators work on-site with local businesses to create a customized plan on how to improve productivity by capitalizing on existing assets and guiding their team in implementation of the latest advanced manufacturing technologies including hardware, software, cloud computing or process improvement. Upon completion of the Assessment, the Facilitator recommends a plan that will enable the business to make informed decisions to assess, purchase, adopt, implement, train and/or maintain new technologies.

Benefits of Technology Adoption

Lower Operating Costs

Digitization opens the door to the collection of data that can be mined to identify efficiencies in existing operations, decrease downtime and monitor and guide production activity.

Increased Product Quality

Advanced technologies can help to root out errors and deficiencies in production, boost quality control and lead to overall improvements in the production process.

Higher Innovation Capacity

Technologies like 3D printing and rapid prototyping speed up innovation cycles and can unlock new abilities and capacity that were previously unavailable to producers.

Increased Customer Satisfaction

Digitization and advanced technology use can increase customer satisfaction by decreasing response times, creating more specialization and customization opportunities and improving product quality.

1.3 Build ESG Capacity for Local Manufacturers

The newly launched **Environmental, Social and Governance Centre of Excellence** is helping B.C. businesses to adapt and grow within an economic environment that increasingly puts value on managing environmental and social impacts.

ESG topics including GHG emissions, water usage and ethical sourcing of materials are becoming more critical for B.C. manufacturers to measure and report on, as expectations and requirements increase from supply chain partners, financers, investors, customers and employees. The ESG Centre helps those B.C. manufacturers by providing no-cost one-on-one advisory support and a suite of tools and resources to help them understand the fundamentals of ESG and why it can be important to their growth.

By elevating awareness of ESG considerations as drivers of innovation, B.C. businesses – including manufacturing businesses – will be well positioned to be competitive, manage risks, secure financing, and operate in diversified markets. The Province is providing up to $7.1 million in funding to the Centre in 2023/24 and 2024/25.

1.4 Evaluate our Tax Competitiveness

B.C. offers a number of tax incentives to help manufacturers innovate and grow.

Manufacturers benefit from a **PST exemption on qualifying production machinery and equipment**. This amounts to a 7% savings on all qualifying investments in manufacturing production capacity.

The following is exempt from PST:

- Production line machinery and equipment, including generic and specifically-designed machinery, and
- Computers and software that is used to control, monitor or operate exempt machinery and equipment, and
- Power tools and hand-held tools used in the manufacturing process, and
- Forklifts, and machinery and equipment used to store raw materials or the finished product and/or used to package a finished product.

Many manufacturers also benefit from a **reduced small business tax rate** and the **elimination of non-residential PST on electricity**. In addition, many manufacturers can benefit from the **Small Business Venture Capital Tax Credit**, an incentive for businesses and individuals seeking to invest, and tax measures that support an accelerated write-off of capital assets. B.C. also offers the **Scientific Research and Experimental Development Tax Credit**, which encourages research and innovation.

Manufacturers are also able to claim an **additional capital cost allowance of six percent for buildings**, representing a significant tax deduction available for manufacturers.

As part of the Manufacturing Action Plan, we will continue to review current financial incentives and other measures to strengthen B.C.'s overall competitiveness.

Pillar 2:
Advancing Clean Manufacturing and Net-Zero New Industry

Through the Manufacturing Action Plan and CleanBC, government is working with manufacturers across the province to reduce pollution, improve efficiency and adopt new technologies. We're also supporting new opportunities for clean, low-carbon growth to strengthen our competitiveness globally by building on B.C.'s clean energy and clean tech advantages.

The global market for clean energy, technologies, products and services is valued in the trillions of dollars and B.C.'s clean industries have a head start on meeting demand. Whether it's the development of hydrogen or low-carbon building products like mass timber, the B.C. manufacturing sector will play a critical role in supporting clean growth locally and internationally.

2.1 Support Manufacturers in B.C.'s New Output-Based Carbon Pricing System

As part of Budget 2023, the Government of British Columbia announced a transition to an output-based carbon pricing system for large industry by 2024. This new made-in-B.C. output-based pricing system will ensure emissions reductions for industry continue while also providing flexible and low-cost options, such as earned credits and carbon offset units, to meet compliance obligations.

The New B.C. Output-Based Carbon Pricing System:

- Is designed specifically for industry in B.C. and is mandatory for facilities that emit over 10,000 tonnes of greenhouse gas emissions per year.
- Is a carbon pricing model that promotes environmental leadership while fostering competitiveness.
- Follows the federal carbon price path and supports the Province's goal of reducing emissions by 40 percent by 2030, 60 percent by 2040, and 80 percent by 2050.
- Will incentivize industrial emitters to reduce their GHG emissions by using a performance-based system that allows flexible and low-cost compliance options, such as earned credits and B.C. offset units.
- Assesses facilities on an annual basis. Facilities that emit under their annual emission limit will earn credits that they can subsequently sell to other facilities in the system. Facilities that emit over their emission limit can meet their compliance obligations by using a combination of options including earned credits, B.C. offsets, and direct payments.
- Supports B.C.'s carbon market, which includes the buying and selling of B.C. verified offsets.

Major B.C. manufacturing industries that will be included in the new output-based carbon pricing system include, but are not limited to:

- Pulp & paper
- Sawmills & wood preservation
- Cement & concrete products
- Primary & fabricated metals
- Chemical manufacturing

What is Net-Zero?

Net-zero emissions means that any greenhouse gas emissions produced by industry are balanced by equivalent amounts of greenhouse gas removals from the atmosphere.

Why is Net-Zero New Industry Important?

Industrial emissions are a significant part of the Province's greenhouse gas emissions. In 2020, industrial emissions made up approximately 40 percent of the B.C.'s total emissions.

The B.C. manufacturing sector produces approximately 6% of B.C.'s total emissions, representing 4.0 megatonnes of carbon dioxide equivalent (Mt CO_2e).

There is growing recognition in financial and business communities that business-as-usual is no longer an option. Global investors like the Glasgow Financial Alliance for Net Zero – representing over $80 trillion (USD) in investment capital – have called for an accelerated transition to net-zero emissions by 2050 at the latest.

The new output-based pricing system allows smaller facilities to opt-in allowing operations to reduce their carbon pricing obligation.

The **CleanBC Program for Industry**, which includes the **CleanBC Industrial Incentive Program** and the **CleanBC Industry Fund**, will undergo a transition in 2023-24. Government will ensure that impacted manufacturers continue to receive supports and incentives under the new output-based carbon pricing system so that B.C. industries remain globally competitive while promoting the production of lower-carbon goods.

2.2 Help New Industries Become Net-Zero Ready

In October 2021, B.C. published the *CleanBC Roadmap to 2030*, detailing its plan to achieve its legislated 2030 emissions reduction target of 40 percent below 2007 levels and put it on the path to meet future emissions reduction targets. To ensure new industrial development aligns with B.C.'s climate targets, the Roadmap introduced a commitment to require that all new large industrial facilities develop a plan to achieve net-zero greenhouse gas (GHG) emissions by 2050. Large industrial projects are defined as facilities expected to have annual GHG emissions of more than 10,000 tonnes per year.

New large facilities, including those in the manufacturing sector, will be required to develop net-zero plans that must be approved by the Climate Action Secretariat before they proceed to construction and operation. Emissions reductions are achieved most cost-effectively in the design stage. As such, net-zero plans must demonstrate that best available technologies and practices have been applied to minimize on-site emissions in initial design. Plans will also present how the facility will mitigate the balance of remaining emissions through options such as offsets in 2050 and each year thereafter.

We will also continue to support manufacturing industries in transitioning to clean electricity

where possible. BC Hydro and government are acting on recommendations under **Phase 2 of the BC Hydro Review.** This includes speeding up connections to the electricity grid and supporting the switch to clean power for more industries and businesses.

B.C.'s Clean Electricity

Under the *Clean Energy Act* at least 93 percent of electricity generated in B.C. must be from clean or renewable sources. Under the *CleanBC Roadmap to 2030*, B.C. will adopt a 100 percent Clean Electricity Standard. BC Hydro currently generates 98 percent clean electricity.

BC Hydro will embark on an unprecedented level of construction over the next 10 years, building out British Columbia's electricity system to power a growing clean economy and create new jobs through a $36-billion investment for community and regional infrastructure projects.

2.3 Promote Circular Economy Principles

A circular economy is an economic driver for sustainable business, innovation, and supply chain management. Adopting circular thinking enables economic results while reducing the impacts on our climate and environment.

A circular economy is a paradigm shift from the linear "take, make, waste" system where natural resources are used to make items that are disposed when no longer needed. A circular economy model aims to eliminate waste and pollution by designing out waste from the process, keeping products and materials in use for as long as possible through strategies such as sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products back into manufacturing processes.

The circular economy offers significant benefits for the manufacturing sector:

- **Cost Savings:** by more efficiently using resources and reducing the need for new raw materials, many manufacturers can save on input costs significantly.
- **Supply Security and Competitiveness:** circular practices enhance resilience against supply chain disruptions and reduce dependency on raw materials. This approach mitigates risks from price volatility and supply issues, boosting competitiveness.
- **Emissions and Waste Reductions:** not only does circularity reduce waste, it also reduces disposal and landfilling costs and other regulatory costs associated with waste discharges. It also helps minimize GHG-related costs.
- **Economic Growth, Employment and Competitiveness:** the circular economy offers new economic opportunities by stimulating innovation and creating competitive business advantages for new products that offer greater environmental performance or certifications.
- **Enhanced ESG Recognition:** manufacturers that use circular principles in their operations can improve their performance on key ESG metrics, strengthening investor confidence and enhancing social licence.

The *CleanBC Roadmap to 2030* outlines a need for a provincial-wide approach to the circular economy. Policy development on the approach is progressing in alignment with the Manufacturing Action Plan. The approach will include industries like forest products, agriculture and agrifood, and critical minerals, and will aim to not only reduce carbon emissions but also create new economic opportunities.

2.4 Reduce the Carbon Intensity of Manufactured Products

Supporting clean manufacturing and developing a net-zero economy also includes considering opportunities to store carbon in – and decrease the carbon intensity of – conventional materials. For example, a young forest captures carbon as it grows, and carbon can be further stored in long-lived wood products as that forest is harvested and regrown. The Office of Mass Timber Implementation has developed a **Mass Timber Action Plan** to promote mass timber in construction, which stores carbon in long-lived wood products and decreases the carbon intensity of new buildings by avoiding the use of more carbon-intensive materials.

The Ministry of Forests has also been investing in the research and development of novel bioproducts focusing on forestry residuals and byproducts as inputs into finished products that could replace petrochemicals. These bioproducts can be less carbon intensive and will help the province diversify its forest economy by manufacturing higher-value biomaterials. The Indigenous Forest Bioeconomy Program partners with First Nations to develop projects in the broader bioeconomy, supporting First Nations to participate in the forest economy according to their local priorities.

Pillar 3:
Building a Future-Ready Manufacturing Workforce

One of the top challenges affecting B.C.'s manufacturing sector is a skills and labour shortage.

In B.C., more than two-thirds of manufacturers are experiencing recruiting challenges, and more than half are reporting current unfilled vacancies and skills shortages. Job vacancies in manufacturing are at an all-time high, and in the coming decade, approximately 25% of the B.C. manufacturing workforce will be eligible to retire.

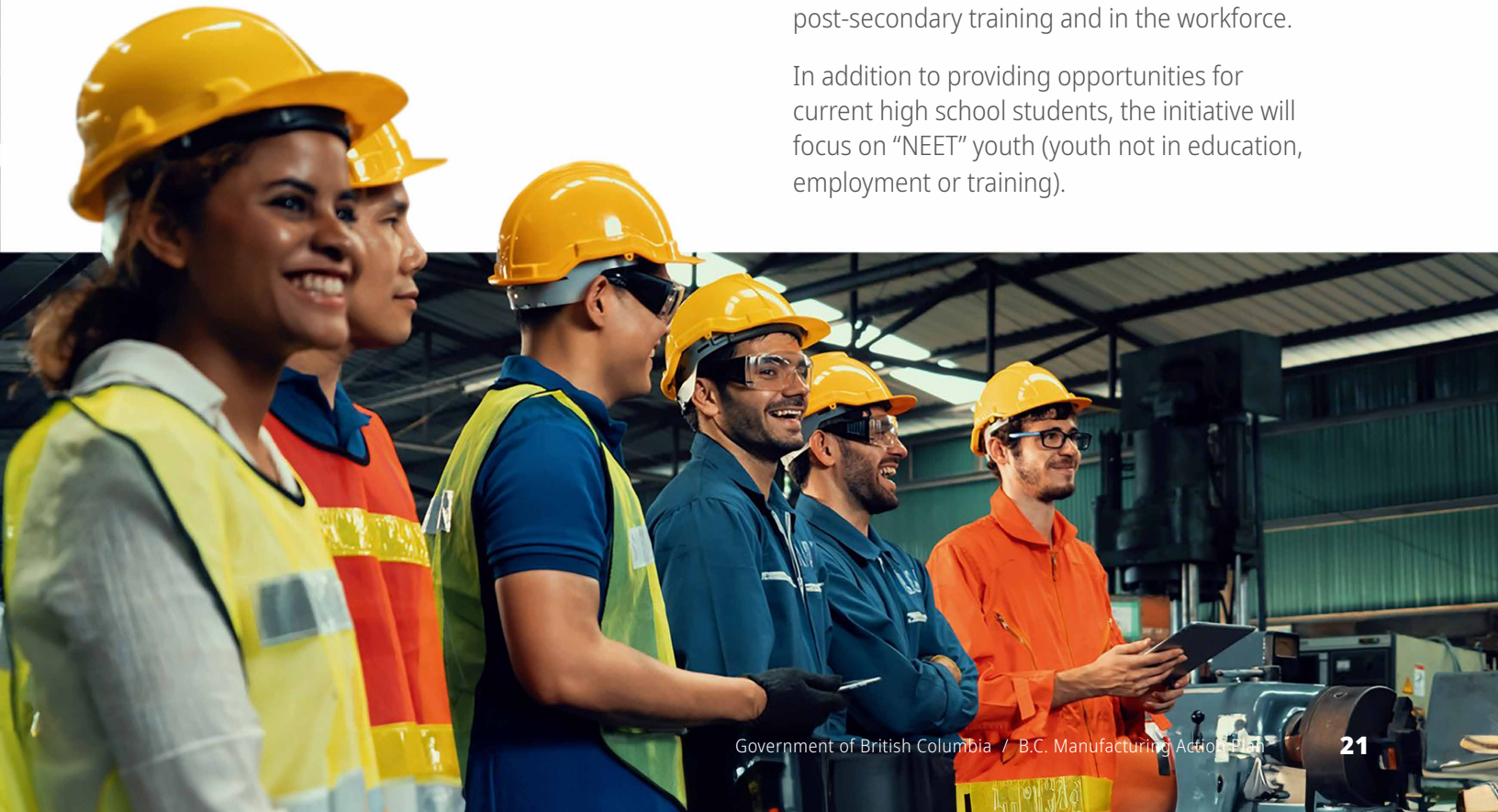
We also know that with intensifying global competition, British Columbia will see increased demands on productivity, which will place high demand on advanced manufacturing technologies – and new workers with those skills. In fact, B.C.'s 2023 Labour Market Outlook projects over 50,000 new job openings in manufacturing over the next decade.

3.1 Deliver a New Youth in Manufacturing Initiative

The development of the future workforce for the manufacturing sector is critically important. One way that we will build a workforce that enables our manufacturers to grow and remain globally competitive is by supporting youth in finding meaningful and rewarding careers in manufacturing. Reducing barriers for traditionally under-represented people to enter manufacturing careers, while attracting younger workers earlier, is an important part of the government-wide Future Ready Skills Plan.

We introduced a new **Youth in Manufacturing Initiative** delivered by the Excellence in Manufacturing Consortium (EMC). This initiative will provide up to 500 youth ages 16-21 with short-term work placements to develop skills and work experience that position them for success in post-secondary training and in the workforce.

In addition to providing opportunities for current high school students, the initiative will focus on "NEET" youth (youth not in education, employment or training).



The initiative will also ensure cultural safety for Indigenous People and inclusion of under-represented groups, including women and members of the Black, Indigenous and People of Colour (BIPOC) community.

EMC will leverage their extensive relationships with its manufacturing employer base and related stakeholder and supply chain networks to build significant partnerships between industry and stakeholder organizations, post-secondary education institutions, and all levels of government. Work placements delivered will include 40+ diverse occupations and trades, including assembler, junior welder, machine operator, food processor, material handler, and robot operator. All manufacturers in B.C. are eligible to apply for funding through the program.

Results from a similar iteration of this program in Ontario are very strong: 97% of participating youth positively indicated they enjoyed their manufacturing work placements and skills acquired. The B.C. iteration of the program commenced operations in Fall 2023 and it will take place over three years (2023-2026). Key performance indicators will be continuously monitored to ensure success of the program.

3.2 Highlight Job Opportunities in Manufacturing

B.C.'s 2023 Labour Market Outlook forecasts over 50,000 new job openings in manufacturing over the next decade. Employment growth in the manufacturing sector will be broadly diversified, with significant employment expansion expected in the following industries:

Selected Manufacturing Industry	Total Job Openings by 2033
Food & beverage manufacturing	18,400
Other manufacturing [1]	17,900
Machinery manufacturing	4,300
Transportation equipment manufacturing, including aerospace	2,500
Fabricated metal product manufacturing	2,000
Primary metal manufacturing	1,800
Wood product manufacturing	1,600
Ship & boat building	1,300
Paper manufacturing	1,100

1 Other manufacturing includes: textile mills; printing and related support activities; clothing, leather and allied products; petroleum and coal products; chemical, plastics and rubber products; non-metallic mineral products; computer and electronic products; electrical equipment, appliances and components; furniture and related products; and miscellaneous manufacturing.

Many manufacturing industries in B.C. have average compensation of more than $50 per hour, including aerospace, medical products, shipbuilding, primary metals, electrical equipment, petroleum products, machinery, paper products, and wood products.

As part of the Manufacturing Action Plan, we will promote the manufacturing sector to B.C. youth through the **WorkBC Find Your Fit tours** offered provincewide. The tours target students in grades 5 through 10 to help them discover a range of high-opportunity occupations in B.C. through fun, interactive activities.

We also developed **targeted employment resource for the aerospace sector** by creating a new job-finding website, www.bcaerospacecareers.ca. Funded by the Ministry of Jobs, Economic Development and delivered by the Aerospace Industries Association of Canada Pacific (AIACP), this resource provides a comprehensive listing of all aerospace job postings in B.C., complete with success stories and employer profiles.

3.3 Support Continuous Learning and Upskilling in Manufacturing

Ensuring that the existing B.C. manufacturing workforce has the tools and training to remain competitive amidst intensifying global competition is a key priority. The province is delivering a number of resources to ensure manufacturing workers in B.C. have the supports they need to grow, including:

- The **Community Workforce Response Grant (CWRG)**, which provides flexible and timely responses to emerging and urgent labour and skills needs in B.C.'s communities and sectors – including manufacturing. The CWRG provides funding for cohort-based, short-term skills training. The CWRG fully funds training that costs up to $10,000 per participant and provides up to $5,000 for other services and support to help participants overcome training and employment barriers.
- The **Employer Training Grant**, which provides funding to small, medium and large enterprises to support skills training for their workforces, including prospective new hires. The intent of this program is to help British Columbians access the skills training required to adapt to the labour market's changing job requirements, while also encouraging employer involvement in skills training. Employers can apply as often as they need and receive 80 per cent of the cost of training up $300,000.
- The **Training Tax Credit for Employers,** which provides a refundable tax credit for employers that hire eligible apprentices, helping to offset up to 30% of apprentice salary and wages.
- Enhanced **supports for forestry workers,** which is providing $185 million between 2022 and 2025 for coordinated and comprehensive supports for workers, communities and First Nations to offset any economic impacts that may follow from changes to the forestry industry. Supports include specialized skills training options to help workers pivot to new jobs.
- **Expanded graduate scholarships and internships** are increasing merit-based scholarships for students in science, technology, engineering, and mathematics fields and other disciplines to support students to become the next generation of researchers, innovators, and leaders.
- **TradeUpBC,** which provides new reskilling and training opportunities for trades workers that fall outside of formal apprenticeship training programs. Training is developed with input from industries, is relevant to the needs of employers, and allows employees to work and learn.
- The **Future Ready Action Plan** boosts training for people looking to enter the growing **mass timber** industry, with a variety of post-secondary institutions offering training in mass timber design, mass timber development and construction skills, and mass timber digital skills.
- **Mitacs,** a B.C.-based non-profit organization facilitating collaborations between industry and academia, providing internships for students and postdocs to apply their academic skills to solve real-world problems.

3.4 Enhance Occupational Health & Safety

With funding from the Sector Labour Market Partnerships project, the Manufacturing Safety Alliance of B.C. (MSABC) engaged with industry subject matter experts, employers, and post-secondary institutions to establish competency thresholds for Occupational Health and Safety (OHS) professionals working in manufacturing.

MSABC also developed free-to-use web-based competency tools to support employers with recruitment and current OHS workers with

professional development. The project has received support from educators, trainers, employers, and industry professionals, who all recognize the need for standardized competencies, program accreditation, and professional certification in the OHS profession.

The Competency Assessment Tool and Needs Assessment Tool are online resources designed to help OHS professionals assess their competencies and employers define the skillsets needed to support their OHS requirements. Educators and trainers are considering incorporating MSABC's Framework into their curricula to address gaps and improve the quality of education.

Pillar 4:
Making our Supply Chains More Resilient and Diversified

Global disruptions caused by the COVID-19 pandemic highlighted the critical importance of the manufacturing sector and underscored the need to ensure B.C.'s supply chains are resilient and efficient.

Strong supply chains are essential for business and consumer confidence and for the efficient functioning of the manufacturing sector. In addition to transportation and logistics costs, the reliability and resiliency of our trade networks, as well as their carbon footprint, are all elements that can have a direct impact on overall business competitiveness.

Resilient, efficient, and cost-effective supply chains also improve manufacturers' productivity, protect jobs that people and communities rely on, and help insulate British Columbians from shortages and inflationary pressures that can result from disrupted or broken supply chains.

In addition to the COVID-19 pandemic, other global issues like climate change and geopolitical shifts have heightened the importance of supply chain resilience in B.C. Although supply chain disruptions can be global in nature, local and community-driven solutions can also improve British Columbia's preparedness and resilience to global uncertainties.

In addition to the development of the Manufacturing Action Plan, we're responding to these challenges through a dedicated **Goods Movement Action Plan** which is designed to help make our goods movement ecosystem smarter, cleaner and more competitive while at the same time supporting livable communities.

4.1 Advance Findings from B.C. Supply Chain Research

To support the Manufacturing Action Plan, the Province examined its manufacturing capabilities through extensive industry-led research with the goal of increasing long-term supply chain resilience.

We invested $6 million in the **Supply Chain Resiliency Grant Program** to support B.C. manufacturing businesses and industry associations to increase overall supply chain resiliency, identify opportunities to promote innovation and collaboration, and generate employment and revenue through growth and diversification.

The Supply Chain Resiliency Grant Program funded nine supply chain studies from priority B.C. manufacturing sectors. Led by B.C. industry associations, these comprehensive supply chain studies include key findings that are being used by government and industry to address supply chain issues and promote growth of B.C. companies and their respective industry sectors.

The supply chain studies have informed government manufacturing policy and related programming. For example, in January 2023, the B.C. Government announced the B.C. Timber Sales (BCTS) Value-Added Manufacturing Program to ensure that small and medium-sized secondary B.C. manufacturers will have a dedicated fibre supply under a new licensing program. Background and industry support for the program flowed from initiatives such as the Independent Wood Processors Association (IWPA)

Overview of Supply Chain Studies

1. **Aerospace – Aerospace Industries Association of Canada, Pacific**

   Analyzed and documented the aerospace manufacturing supply chain and capabilities to identify strengths, barriers to growth and opportunities.

2. **Agrifood – BC Food & Beverage**

   Analyzed the impact of supply chain disruptions as a result of COVID-19 and identify best practices in addressing and adapting to supply chain disruptions and assess feasibility of the proposed solutions.

3. **Forestry – BC Council of Forest Industries**

   Developed a supply chain roadmap through three input studies:

   Study 1 – Supply chain benchmarks, barriers, and opportunities

   Study 2 – Digitalization opportunities along the supply chain

   Study 3 – Learnings from other jurisdictions

4. **Forestry - BC Wood**

   Developed a supply chain analysis for value-added wood manufacturers.

5. **Forestry - Atli Resources LP ('Namgis First Nation)**

   Created a "Fiber Supply Chain Model" to overcome barriers that create under-utilized harvest residuals on north Vancouver Island.

6. **Forestry - Domtar Pulp Mill & B.C. Pulp & Paper Bio-Alliance**

   Developed bio-based replacements for petroleum-based packaging materials.

7. **Forestry - Independent Wood Processors of British Columbia**

   Analyzed fiber supply constraints that restrict opportunities for value-added wood products.

8. **Forestry - Independent Wood Processors of British Columbia**

   Studied barriers and opportunities of processing value-added hemlock products in B.C.

9. **Manufacturing SMEs - Construction Foundation of B.C. Society**

   Conducted research on the technology and training gaps which create barriers for local northern B.C. based manufacturers to compete for work on major projects in the region and across B.C.

supply chain study which called for secure fibre access for local B.C. wood products manufacturers who do have long-term timber tenures.

B.C. continues to work with national and provincial industry associations to continue advancing the supply chain study recommendations and further inform future government manufacturing policies and programming.

British Columbia Strategic Supply Chain Analysis

The Province also invested $250,000 to analyze opportunities to strengthen strategic B.C. supply chains as part of a provincial recovery that aims to increase supply chain competitiveness and resilience, and identify key manufacturing opportunities.

The resulting strategic supply chain analysis focused on five key B.C. manufacturing supply chains, including: food and beverage; chemicals (including hydrogen); computers, electronic and electrical equipment; minerals and metal products; and transportation and machinery equipment.

The strategic supply chain analysis final report outlines opportunities to position B.C. for future economic growth through the enhancement of supply chains that support a sustainable, technologically enabled manufacturing ecosystem. The analysis includes industry-specific actionable policy options that are helping inform supply chain policy and manufacturing programs.

Results from the analysis have been used to help inform **B.C.'s Critical Minerals Strategy**, which lays the foundations for strong partnerships between First Nations, government and industry that will encourage investment and sustainable economic growth that advances climate action. The Strategy will strengthen B.C.'s critical minerals sector, including processing, manufacturing and recycling, and will open up access to global markets and secure new jobs across the province.

4.2 Strengthen our Transportation and Trade Networks

The manufacturing sector is B.C.'s second largest goods-producing industry, with the total market value of manufacturing shipments exceeding $5 billion each month in B.C. alone. The scale of B.C.'s manufacturing shipments necessitates a reliable, resilient, efficient, and competitive transportation and trade network to ensure the smooth flow of goods across the province.

Transportation and logistics play a crucial role in the manufacturing sector's competitiveness by helping companies ensure they can access the necessary inputs for their processes reliably and cost-effectively. Similarly, delivering finished goods to customers reliably and at a competitive price is critical. Moreover, in today's market, leveraging competitive ESG positions—such as offering a low-carbon footprint—has become a valuable strategy and can be a key differentiator for B.C. manufacturers. The performance and resilience of B.C.'s goods movement network is not only a key factor in improving the cost of doing business for manufacturers across the province but also for building on B.C.'s international reputation for trade and investment.

The landscape in which the goods movement ecosystem operates is rapidly changing, including shifting global geopolitical relationships, climate and labour-related disruptions, rapid growth in e-commerce, emerging innovative technologies, and evolving stakeholder and community expectations. One of the ways we're responding is through work led by the Ministry of Transportation and Infrastructure to develop a **Goods Movement Action Plan** that will advance infrastructure, policy, programs and pilots that support efficient and reliable transportation across the province.

Examples of key actions we're taking as part of that Plan that will support the manufacturing sector include:

- Supporting the Vancouver Island Economic Alliance's Supply Chain Management Project to enhance the regional port ecosystem and harness the potential of the Port of Nanaimo as a multi-modal transportation hub.
- Advancing the Fraser Valley Highway 1 Corridor Improvement Program to improve the capacity, fluidity, connectivity and resiliency, including participating in the planning of the future of Sumas Prairie.
- Performing a critical assessment of all ministry highway and side roads to support the ministry in prioritizing adaption and resiliency enhancements.

The Increasing Importance of Air Cargo in B.C.

Air cargo has emerged as a vital component of B.C.'s goods movement ecosystem over the past few decades, facilitating trade, supporting economic growth, and connecting with global markets. Air cargo is becoming an increasingly important component of the transportation network supporting B.C.'s economy. Over the last decade, air cargo has accounted for about 13.1% of goods clearing B.C. In 2023 alone, B.C. airports handled nearly $3.6 billion in exports, the highest since 2013.

The commodities exported through our airports support key economic growth in sectors such as advanced manufacturing and pharmaceuticals; according to YVR, although less than 1% of goods are shipped by air globally, the value per weight is roughly 32 times that of surface shipments.

The Province has developed a strong, collaborative relationship with YVR and is currently working with both YVR and Richmond on a Moray Area Planning Study to strengthen air cargo capacity.

We'll continue working together with, and encourage collaboration among, private companies, labor groups, First Nations, port authorities, and different levels of government to improve our transportation and logistics systems, advance our climate objectives, and support the livability of our communities. We'll keep updating our actions and plans, looking at both short-term and long-term needs, to make sure we're always moving forward.

4.3 Drive More Exports of Made-in-B.C. Products

Manufacturing is the lifeblood of B.C.'s exports – over 50% of B.C.'s goods exports are manufactured products. Exporting supports the province's trade balance and generates significant business and tax revenue that creates well-paying jobs and strengthens community infrastructure.

B.C. offers manufacturers a major geographical advantage – access to the port of Vancouver, through which over $300 billion in goods flow every year, to and from 170 countries.

Manufacturers also have ready access to international markets through our port of Prince Rupert, which is North America's closest port to Asia by up to three sailing days. In fact, it's 36 hours closer to Shanghai than Vancouver and over 68 hours closer than Los Angeles. To support this strategic port, in 2021 the B.C. Government made a $25 million investment in a project led by the Prince Rupert Port Authority to improve and expand infrastructure at the Ridley Island Export Logistics Platform. The project, spanning more than 28 hectares (70 acres), will create a platform to enhance the port's capacity for transloading B.C. and western Canadian products for containerized export by sea to international markets.

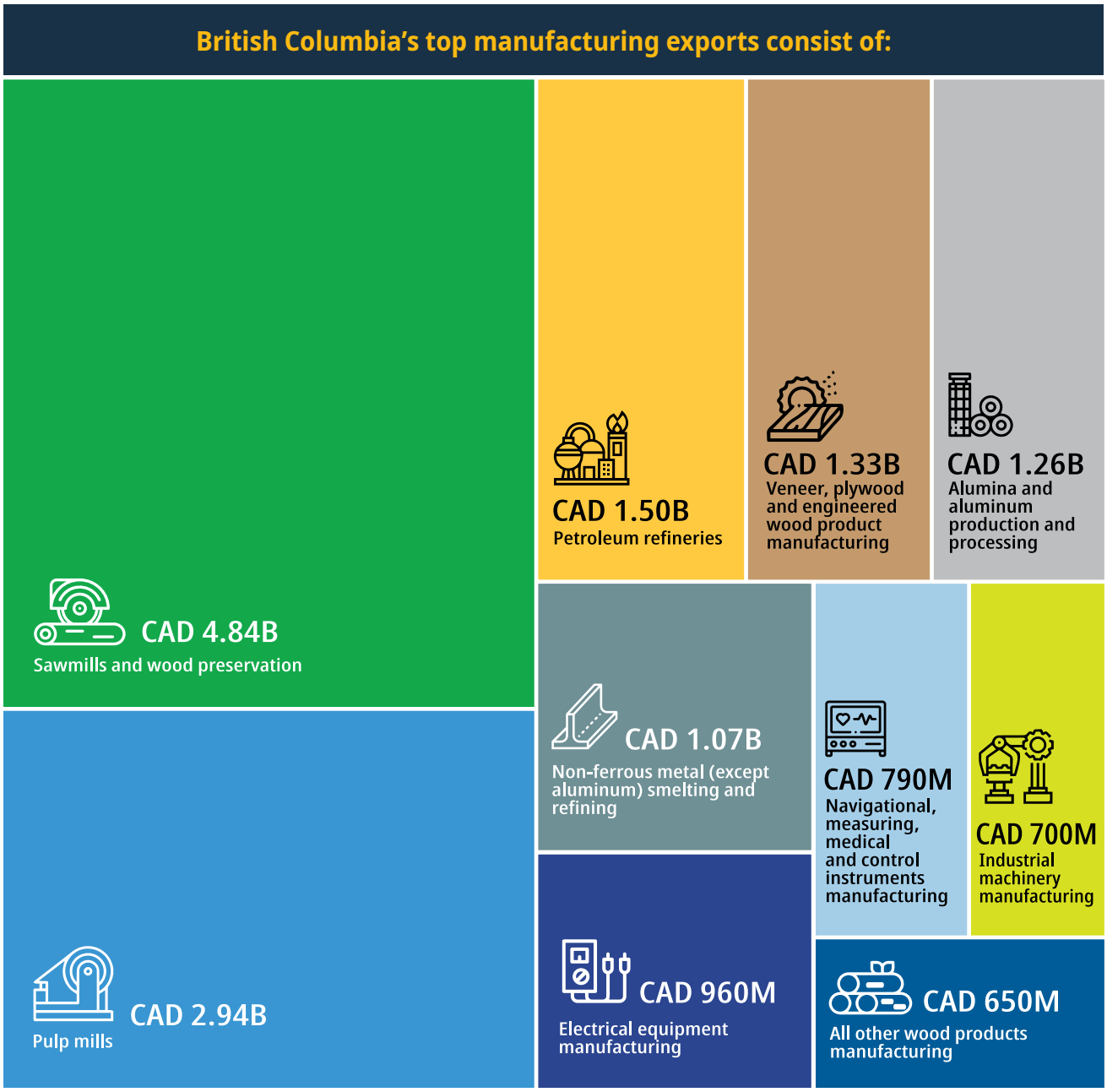
Key Export Commodities and Markets

The United States is the top market for B.C.'s manufactured goods, with China, Japan, and South Korea also being key markets.

The Netherlands ranks as the fifth-largest importer of B.C.'s manufactured products.

A critical component of B.C.'s manufacturing exports is the wood product manufacturing industry, which includes sawmills, pulp mills, veneer, and engineered wood products. This industry alone accounted for approximately 32% of B.C.'s total manufacturing exports in 2023, underscoring the impact of value-added woods products in B.C.'s international trade portfolio.

Other prominent exports in the B.C. manufacturing sector include petroleum products, aluminum and other non-ferrous metals, electrical equipment, industrial machinery and other instruments, seafood and animal products, and chemicals.



Top 10 B.C. Manufacturing Export Destinations, 2023

B.C. offers a range of programs and services to help manufacturers export. This includes:

- **Export Navigator**, which guides local entrepreneurs through the export planning process by pairing them with Export Advisors.
- **The Trade Accelerator Program**, which provides essential strategy resources and mentorship to help Small and Medium-sized manufacturers and other businesses to scale up and activate an export plan designed to help business reach their full export potential. The TAP program has a proven track record of helping participants get results.
- **Trade & Invest B.C.**, which matches sellers with buyers, and investors with opportunities. Trade & Invest B.C.'s experienced and educated team of trade and investment professionals have access to a global network of representatives in China, Japan, Korea, Southeast Asia, India, Europe, and the United States.
- **The B.C. Agriculture and Food Export Program**, which provides $1 million in annual cost-shared funding to support the agriculture and food & beverage processing sectors in undertaking export market development activities to maintain, expand and diversify export markets.
- **B.C. Export Awards,** which is the province's most prestigious awards paying tribute to the success and innovative approaches of B.C. export companies, which includes a dedicated award category for manufactured products.

In addition, **B.C.'s Trade Diversification Strategy** has identified manufacturing as a priority sector, with identified opportunities in new global markets, particularly Mexico, Taiwan, and Vietnam. The Strategy uses B.C.'s competitive advantages to increase export and investment opportunities in targeted new markets, expand in key existing ones, and increase the number and diversity of B.C.'s exporting businesses.

B.C. will also continue to promote the province's key manufacturing industries in domestic and overseas markets, working closely with Global Affairs Canada and industry stakeholders.

4.4 Leverage Procurement to Create New Opportunities in Manufacturing

Public-sector procurement can be a driver of business opportunities for the manufacturing sector. As part of the Manufacturing Action Plan, we will continue to explore opportunities to use procurement to drive growth in B.C.'s manufacturing sector by building on our successes.

One success story is **Feed BC**, which is a provincial government partnership initiative led by the Ministry of Agriculture and Food to increase the amount of made-in-B.C. food and beverage products in hospitals, residential care facilities, public post-secondary institutions, Kindergarten to Grade 12 schools, and other government-supported facilities.

Through Feed BC, the Ministry works across government and with public sector, industry, and agriculture sector partners to:

- Increase awareness and demand for B.C. food products in public institutions;
- Support the capacity and market-readiness of B.C. food and beverage producers and processors;
- Grow business relationships between B.C. institutions and B.C. food businesses;
- Measure, report on and promote Feed BC progress and partnerships.

In addition, buildings funded by the province use **mass timber** wherever possible, upholding B.C.'s commitment to being a global leader in meeting

environmental and social goals. With over 40 mass timber capital projects announced, and more in the early planning stages, these environmentally sustainable buildings help grow B.C.'s expertise in mass timber design and construction. Demand for mass timber is high and B.C. is well-positioned to embrace this opportunity to grow the economy by both expanding existing mass timber manufacturing facilities, and establishing new ones.

The Province also provided funding to the Aerospace Industries Association of Canada Pacific (AIACP) to deliver webinars on cybersecurity certification to aerospace employers, which increasingly is a requirement when bidding on government military contracts.

And, we will continue to work with the federal government to ensure its **Industrial & Technological Benefits Policy** benefits B.C. manufacturers of all sizes, particularly in the maritime and aerospace sectors.

More broadly, under the B.C. Procurement Plan 2024, the Province aims to address gaps, barriers, and inequities affecting Indigenous Peoples' participation in government procurements through a dedicated **Indigenous Procurement Initiative (IPI)**, co-led by the Ministry of Citizens' Services and the Ministry of Indigenous Relations and Reconciliation.

Pillar 5:
Preserving and Developing Industrial Lands to Support Local Economies

Industrial land plays a crucial role in supporting economic growth, job creation and innovation in British Columbia. Industrial land provides a dedicated space for production and distribution activities, and is essential for the manufacturing sector to grow.

Having a sufficient supply of available and usable industrial land attracts new investment to B.C. and helps to ensure that growing manufacturing companies stay here by providing them with the space they need to scale-up and grow.

In Metro Vancouver, where 4% of the region's land base is zoned for industrial activity, almost one-quarter of all jobs are housed there, generating $9 billion in tax revenue to government, which allows for investments to be made in critical services like health care, transportation infrastructure and education.

Industrial areas often house research and development facilities, innovation centers, and technology parks, which encourage collaboration between academia, research institutions, and manufacturers. Proximity to other industrial players and research facilities fosters innovation, knowledge sharing, and technological advancements, leading to improved productivity and competitiveness.

What is Industrial Land?

Industrial land represents a wide spectrum of uses, ranging from large distribution and transportation lands, warehouses, manufacturing and processing facilities, to small local producers and suppliers, and new technology-driven businesses with integrated workspaces, which all need different elements and servicing to ensure their operations are effective.

Metro Vancouver's 2020 Regional Industrial Land Strategy provides the following categories that fit under the term 'Industrial':

- Light and heavy industrial production (e.g. cement manufacturing, food and beverage manufacturing, furniture manufacturing, metalwork and fabrication, sawmills)
- Distribution (e.g. warehousing, industrial storage, freight trucking, intermodal couriers)
- Repair (e.g. autobody shops, truck and trailer repair, consumer goods repair)
- Construction materials and equipment (e.g. building supplies and specialty trade contractors, heavy equipment rental and leasing)
- Infrastructure (e.g. public utilities such as wastewater treatment facilities and pumping stations, works yards, rail / port terminals)
- Outdoor storage activities (e.g. container storage)
- Wholesale (e.g. merchant and logistics wholesalers)

A key challenge in some regions of B.C. is the shortage of available industrial land. In Metro Vancouver for example, availability rates are as low as 0.6%, and this lack of supply has led to a significant increase in the cost of industrial land in the region. While there is a much greater supply in other areas of the province, these areas are often overlooked by prospective investors, who tend to focus on the Lower Mainland given the proximity to major ports and a larger available workforce.

Preserving and optimizing industrial land in Metro Vancouver, while promoting available industrial land in the rest of the province, is key to ensuring that there is enough space for manufacturing to thrive in B.C.

In December 2022, the Honourable Brenda Bailey, Minister of Jobs, Economic Development and Innovation, received a mandate from Premier David Eby to continue working with local governments to identify and preserve land suitable for supporting sustainable industrial activity and economic benefits in rural and urban communities throughout the province.

As part of the Manufacturing Action Plan, the Province will also work with local governments to encourage the increased density and intensity of manufacturing operations on industrial lands.

The Province's work to protect and strengthen B.C.'s industrial land base will also be undertaken in collaboration with B.C.'s **Goods Movement Action Plan** to ensure manufacturers across the province can operate as efficiently as possible through a robust and resilient transportation and logistics network. One objective of the plan will be to identify, preserve and enhance industrial land close to rail and marine transportation to optimize distances travelled between warehousing and transloading sites and encourage use of energy-efficient modes to reduce vehicle kilometers travelled.

Case Study: City of Richmond's Industrial Lands Intensification Initiative

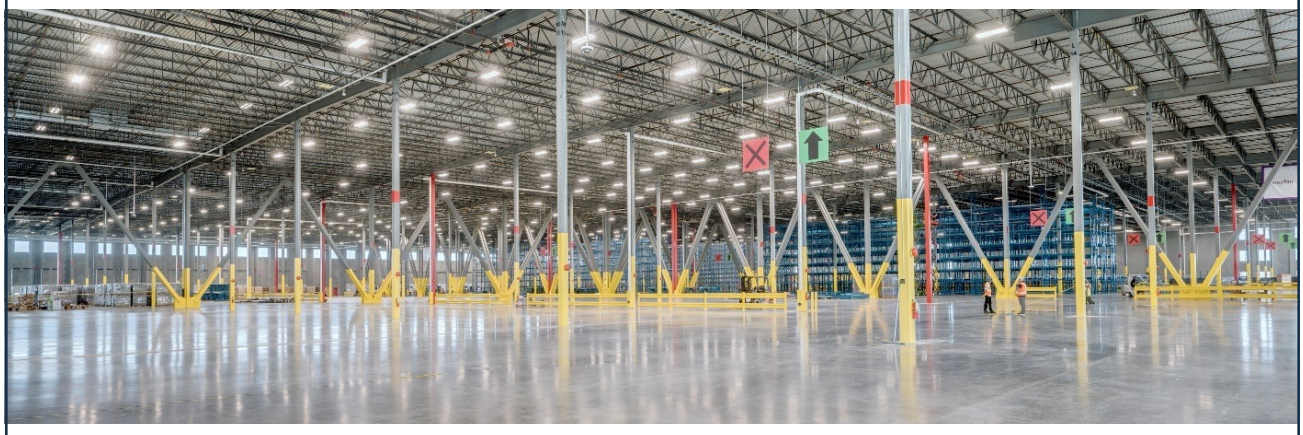
In the City of Richmond, industrial land accounts for a significant proportion of employment and is key to the city's strong and diversified economy. However, industrial land in Richmond faces pressure for conversion to non-industrial uses, and low vacancy rates reflect demand continuing to outpace supply.

To protect and intensify the use of industrial land for industrial activities and, at the same time, support evolving business models, the City of Richmond introduced the Industrial Lands Intensification Initiative (ILII) in 2021. The ILII resulted in the following changes to the City of Richmond's Official Community Plan (OCP) and Zoning Bylaw:

- Maximizing industrial land usage by implementing land use policies that support multi-storey industrial buildings
- Accommodating new and emerging types of industrial businesses
- Ensuring industrial activities are the primary function in certain zones and limiting retail and non-industrial activities
- Increasing building heights from 12m to 16m
- Increasing building site coverage to 75%
- Reducing parking requirements for industrial uses by approximately 25%

A key success to date has been uptake of increased allowable building heights in some areas without the need for separate approvals. This proactive measure has resulted in key development efficiencies for a number of projects, including the recent Richmond Industrial Centre development.

Providing certainty and reducing red tape for the business community, the ILII is a forward-looking, long-term initiative that is expected to impact Richmond for many years to come. It has positioned the City as a leader in industrial land redevelopment and intensification initiatives throughout the region.



Enabled by the City of Richmond's Industrial Lands Intensification Initiative, the Richmond Industrial Centre by Montrose Properties demonstrates the high ceiling heights achieved without the need for additional approvals.

5.1 Promote B.C.'s Industrial Opportunities

One of the ways we are developing new industrial capabilities is by working with local governments to promote their communities and available industrial land to potential investors who are looking to commence operations or expand in B.C.

The Province has developed a number of useful tools and concierge-style services that provide interested investors with insight into communities across B.C., including available industrial and commercial land.

Community Information Tool (CIT)

The Community Information Tool compiles over 40 datasets offering insights into regions across B.C. with integrated socio-economic, connectivity and community assets data. This interactive tool supports community, regional and province-wide planning, which is essential to building thriving communities.

Major Projects Inventory

The B.C. Major Projects Inventory (MPI) provides a comprehensive overview of the major industrial projects proposed or underway in British Columbia.

Published quarterly, the MPI includes a listing of private and public sector projects in B.C. with an estimated capital cost of $15 million or greater ($20 million or greater within the Lower Mainland–Vancouver area).

Trade & Invest BC Site-Selection for Investors

Through Trade & Invest BC, the Investor Services team supports inbound investors exploring B.C. as a destination for investment. As part of their tailored concierge-style support, Trade & Invest BC will assemble a site-selection package when requested by the client.

To meet client needs, Trade & Invest BC collects detailed specifications such as power and gas needs, building specifications, access requirements to road, rail, ports and air, and preference for greenfield and brownfield. With this information, Trade & Invest BC collects intelligence from public MLS listings and works directly with B.C. municipalities to gather a selection of possible sites. Trade & Invest BC will also refer clients to realtors or brokers as needed.

Clean Energy and Major Projects Office (CEMPO)

CEMPO is the main point of contact for proponents looking to bring clean energy projects to British Columbia, as well as for major projects currently underway in the province.

The Office works across government to help clean energy projects – including hydrogen; carbon capture, utilization, and storage; biofuels; and renewable natural gas – reach final investment decisions and support tangible benefits across B.C.

CEMPO prioritizes the advancement of First Nations interests and First Nations-led clean energy projects, including facilitating partnerships with and benefits for First Nations, such as business opportunities and skills training.

Rural Economic Development Services

Specialized government staff are available throughout B.C. to provide free and accessible economic development services to local governments, Indigenous communities, businesses and economic development agencies. Services are tailored to each community's needs and strengths and support economic diversification activities including land development and investment attraction related to industrial opportunities.

B.C. Agritech Concierge Program

The B.C. Agritech Concierge Program invites companies to contact their team of skilled professionals to access services including:

- Facilitating connections to municipal, regional, federal and foreign governments, as well as potential industry partners and other collaborators
- Support for navigating existing programs to scale up, become export ready and attract investment
- Support navigating government's organizational structure

Over 150 agritech companies are already operating in B.C., making advances in key areas like vertical growing, sensor technology, robotics, genomics, waste management and food processing. These developments are transforming our food system, and the way food is grown, domestically and abroad.

5.2 Support Transit-Oriented Developments

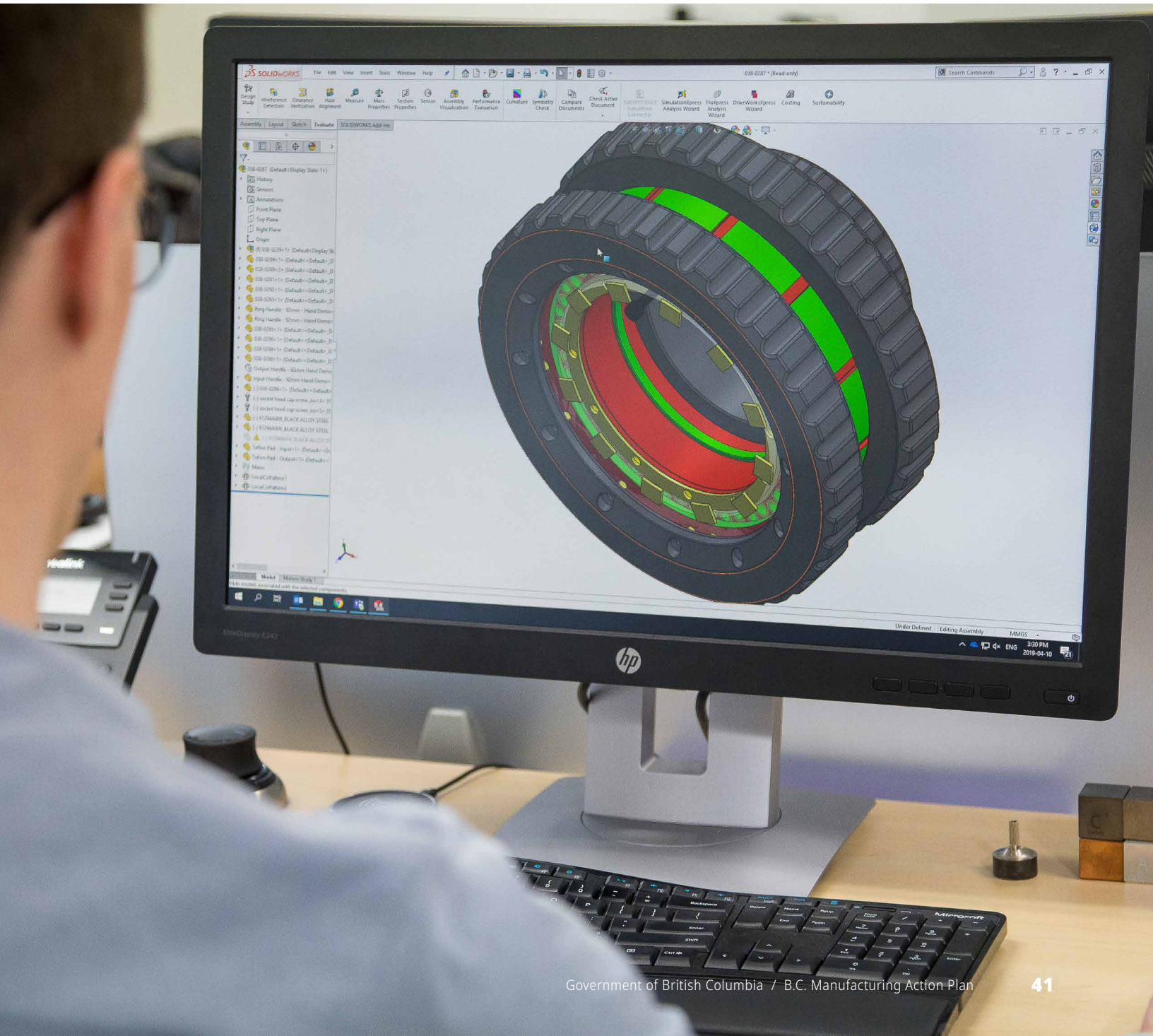
The B.C. Government has introduced changes to the *Transportation Act* that will allow the Province, through the BC Transportation Financing Authority, to acquire land for the purpose of building housing and community amenities to serve people near transit stations and bus exchanges.

Known as "transit-oriented developments," these community hubs are typically located within an 800-metre radius of transit stations, the outside distance from which people can easily access public transit by walking, pedaling, or using a mobility device.

The Province, through the BC Transportation Financing Authority, will deliver these projects by working with local governments and a broad range of partners to achieve livable, transit-supportive communities.

Through the Manufacturing Action Plan, we will work to ensure transit-oriented developments are mixed-use and include light industrial space, which is well-suited for many manufacturing industries like medical products and biomanufacturing, food and beverage products, and clothing manufacturing.

These developments align with Metro Vancouver's 2020 Regional Industrial Lands Strategy and Metro 2050 Regional Growth Strategy, which call for intensification and densification of land use in the region through mixed-use and mixed-employment developments in proximity to major transit hubs.



Summary

British Columbia's manufacturing sector has a rich heritage of producing high-quality goods and services for local and global markets. From traditional industries like wood, paper, food and beverages, and metal products to advanced fields such as aerospace and shipbuilding, the sector is a driving force for our province's economic vitality and innovation.

Central to the Plan are five policy pillars designed to leverage the province's strengths and capitalize on new growth opportunities:

1. **Enhancing productivity and innovation** through new investments, technology adoption, ESG capacity-building, and tax incentives.
2. **Advancing clean manufacturing and net-zero initiatives** to help businesses adopt pollution reduction and clean technologies, aligning with CleanBC.
3. **Developing B.C.'s manufacturing workforce** by focusing on youth initiatives and continuous learning to equip the sector with a skilled and adaptable workforce.
4. **Improving supply chain resiliency and diversification** through government-funded research, strengthened transportation networks, export promotion, and optimized procurement.
5. **Preserving and developing industrial land** to strengthen local economies and trade-oriented growth.

Our Plan prioritizes six manufacturing industries, including: value-added forest products & biomaterials, food & beverage processing, metals & machinery, aerospace, shipbuilding & industrial marine, and medical products & biomanufacturing—due to their growth potential, innovation capacity, and alignment with broader provincial goals.

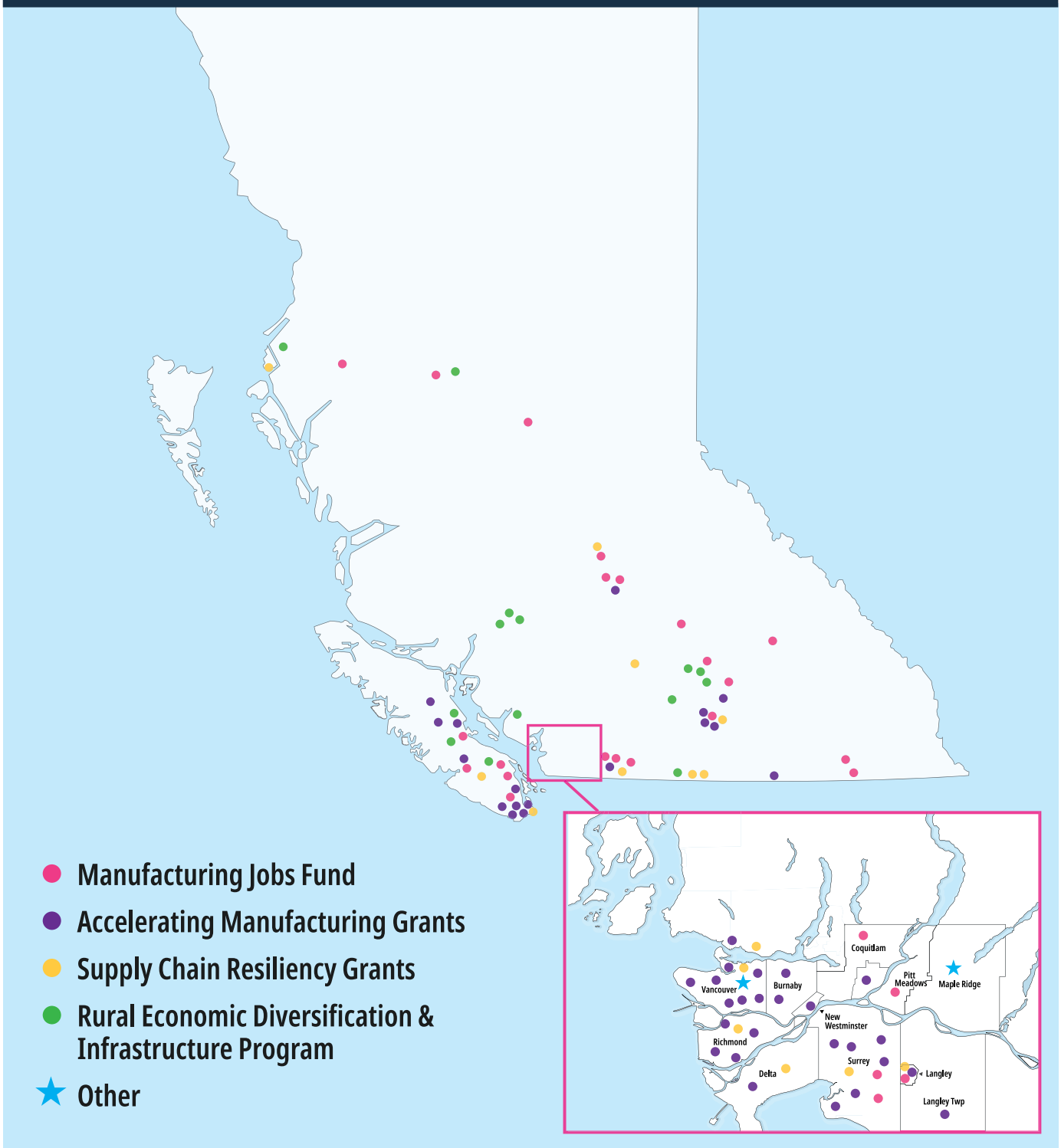
By implementing this action plan, we seek to create more well-paying manufacturing jobs, stronger communities, and more resilient supply chains.

We thank our partners—industry associations, businesses, Indigenous groups, and government bodies — for their invaluable insights in shaping the Plan.

Resources

- Manufacturing Hub (including program inventory): www.gov.bc.ca/manufacturing

Selected B.C. Government Investments in Manufacturing



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